

**REMARKS**

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

**I. Claim Status**

The Advisory Action dated September 29 stated that the amendment-AF was not entered.

Claims 1-3, 5-7, 18 were previously canceled. Claims 19-24 are requested to be canceled. New claims 25-32 are added to replace the canceled claims 19-24. No new matter is introduced.

Claims 4, 8-17 remain withdrawn from consideration.

A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 25-32 are under examination in this application.

**II. Final Office Action**

**A. Objection**

The PTO objected to the amendment filed 03/12/2008 for allegedly introducing new matter into the disclosure. (Office Action, ¶ 2)

Applicants respectfully traverse. However, to advance the prosecution of this application, Applicants removed the recitation which allegedly contains new matter by way of this reply.

Applicants respectfully request the withdrawal of this objection.

**B. Claim Rejection under 35 U.S.C. § 102**

The PTO rejected claims 19-24 as anticipated by Voivodov (Tetrahedron Lett., 1996). (Office Action, ¶ 5)

Applicants respectfully traverse, particularly in view of the foregoing amendment. New claims 25-28 recite specific photon energy absorbing molecules selected from the group consisting of 2,5-Dihydroxybenzoic acid-NHS ester, alpha-Cyano-4-

hydroxycinnamic acid -NHS ester and 3-Picolinic acid-NHS ester. The basis for this amendment can be found in Example 3 and Figure 3 for example. No new matter is introduced.

New claims 29-32 recite the photon energy absorbing molecule comprises a photon energy absorbing moiety and a reactive group selected from the group consisting of anhydride, active ester, aldehyde, alkyl halide, and acid chloride. The basis for these claims can be found, for example, at pages 7-8 and 10 of the present specification. No new matter is introduced.

To anticipate a claim, the reference must teach each and every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). MPEP 2131.

**Voivodov cannot anticipate claims 25-28 because it does not teach providing a specific photon energy absorbing molecule as claimed.** The recited photon energy absorbing molecules can be distinguished from Voivodov's energy absorbing polymers in at least two aspects.

First, Voivodov teaches using energy absorbing polymers. In Voivodov, an energy absorbing molecule is covalently attached to a polymer so to become a moiety of the resultant energy absorbing polymer. In the present invention, the energy absorbing molecules are not polymers, rather they are small molecules with low molecular weight, therefore, the resulting covalent complex contains no polymer.

Secondly, the photon energy absorbing moiety in Voivodov is a free carboxylic acid. In new claim 25, the photon energy absorbing molecules are selected from 2,5-Dihydroxybenzoic acid-NHS ester, alpha-Cyano-4-hydroxycinnamic acid -NHS ester and 3-Picolinic acid-NHS ester. These small molecules are structurally different from Voivodov's energy absorbing moiety as they are NHS esters and have different acidic residues.

As explained above, Voivodov does not teach every element of the new claims 25-28, therefore cannot anticipate claims 25-28.

**Voivodov cannot anticipate claims 29-32 because it does not teach providing a specific photon energy absorbing molecule having a reactive group as claimed.**

The recited photon energy absorbing molecules can be distinguished from Voivodov's energy absorbing polymers in one aspect at least. The photon energy absorbing moiety in Voivodov has a free carboxylic acid group which reacts with the analyte. In contrast, the photon energy absorbing molecule in new claim 29 has a reactive group selected from the group consisting of anhydride, active ester, *aldehyde*, alkyl halide, and acid chloride. These reactive groups are structurally different from Voivodov's photon energy absorbing moiety.

As explained above, Voivodov does not teach every element of the new claims 29-32, therefore cannot anticipate claims 29-32.

Accordingly, Applicants respectfully request withdrawal of the rejection.

### **C. Other Remarks**

The PTO stated that Voivodov would make it obvious to use non-polymeric energy-absorbing molecules for forming complexes, because the essential part of the molecule for covalent binding with the analyte is the energy absorbing moiety which is non-polymeric. (Office Action, ¶ 6)

Applicants respectfully traverse. They believe that the rejection does not apply to new claims 25-32.

Voivodov cannot render claims 25-32 obvious for at least the following reasons. Voivodov does not teach or suggest the method as claimed. Furthermore, it would not motivate one skilled in the art to modify its method in arriving the present invention.

As explained above, the recited specific photon energy absorbing molecules are structurally different from Voivodov's energy absorbing polymers.

Moreover, because of the structural difference, the recited photon energy absorbing molecules behave differently from the energy absorbing polymers described in Voivodov. For instance, the energy absorbing moiety in Voivodov is in acid form which requires the addition of condensation reagent such as 1,3 diisopropylcarbodiimide (DIC, see page 5670, paragraph 2) to couple with analyte. In contrast, the molecules in the

present invention are in activated form, e.g. NHS esters, which require no DIC or other coupling reagent for the coupling reaction with the analyte.

Voivodov cannot render new claim 25-32 obvious. Accordingly, Applicants respectfully request the allowance of claims 25-32.


**CONCLUSION**

Applicants believe that the present application is now in condition for allowance.  
Favorable reconsideration of the application as amended is respectfully requested.


The Examiner is invited to contact the undersigned by telephone if it is felt that a  
telephone interview would advance the prosecution of the present application.


Respectfully submitted,

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